

REMARKS/ARGUMENTS

The arguments presented herein include the arguments Applicants discussed with the Examiner during phone interview dated June 25, 2010. The Examiner said that the arguments seemed persuasive and requested Applicants to submit the discussed arguments for reconsideration, which Applicants present herein. Applicants submit that the arguments presented herein make the substance of the phone interview of record to comply with 37 CFR 1.133. If the Examiner believes that further information on the interview needs to be made of record to comply with the requirements, Applicants request the Examiner to identify such further information.

1. Claims 31, 32, 34, and 40-46 are Patentable Over the Cited Art

The Examiner rejected claims 31, 34, and 40-46 as obvious (35 U.S.C. §103(a)) over Sheinis (U.S. Patent Pub. No. 2004/0019809) in view of Srivastava (U.S. Patent Pub. No. 2002/0120685). Applicants traverse.

Claim 31, 47, and 56 require receiving a call request from a user to execute an object; determining an access authority for the user; acquiring an object access authority set for the object indicating access authorities for methods called by the object; comparing the user access authority and the object access authority set to determine whether the user access authority permits access to the methods called by the object; and searching a storage section storing execution results for a previous execution of the object prior to executing the call request and in response to determining that the user access authority permits access to the methods called by the object.

In the Response to Arguments, the Examiner cited paras. 7, 17, 110, 130 of Sheinis as teaching the claim requirement of acquiring an object access authority set for the object (to execute) indicating access authorities for methods called by the object in order to determine whether the user access authority permits access to methods called by the objects the user is trying to execute. (FOA, pg. 2). Applicants traverse.

The cited para. 7 mentions entity based security to control access to an entity bean (EJB) that is the target of a method call. Access rights may be provided for different groups of users to control methods that users may call on the entity bean, such as to view information contained in the entity bean, and to provide users access to methods that perform other operations on the

entity bean, such as create, remove, update, delete, view. . The cited para. 17 mentions that the request is for a method associated with the server object. The cited para. 110 mentions that the entity security check for a call for an interface to a component is formed before the EJB method call. It could also be desirable to perform the entity access check after a method call. If a security check after the call fails, the client will receive a security exception.

The cited Sheinis discusses providing access rights for different groups of users to determine whether a user may invoke a certain method on an object. This does not teach the claim requirement of acquiring an object access authority set for the object indicating access authorities for methods called by the object. Instead, the cited Sheinis discusses determining if a user has authority to access or invoke a method on an entity or object. This does not teach or suggest determining access authority for methods called by the object so that the access authority of methods called by the object being executed is checked, but instead discusses whether to approve a user call. Applicants submit that the cited Sheinis' discussion of determining whether a user may invoke a method on an object, such as an entity bean, does not teach determining the access authority of methods called by the object the user is calling to execute.

In the rejection, the Examiner further cited paras. 90-98 and 109-113 of Sheinis as teaching the claim requirement of acquiring an object access authority set for the object (to execute) indicating access authorities for methods called by the object. (FOA, pg. 6) Applicants traverse.

The cited para. 90 mentions determining whether a call on an interface is authorized for a user on whose behalf the call was made. An EJB (Enterprise Java Bean) proxy determines whether the call is authorized and extracts security characteristics from the call, which can include the type of call and identity of the user making call, to make this determination. The cited para. 91 mentions that the EJB proxy provides security characteristics to an access control manager. The cited para. 92 mentions that the access control manager obtains access rules for security characteristics and rules specific to the call made. The cited para. 93 discusses examining access control rules to determine whether to approve or reject a call by determining whether the call is allowed. Paras 93 and 94 discuss example of rules that indicate to allow or not allow a type of call. Para. 95 mentions that the access control manager queries a policy manager for authorization to make the call. The cited para. 96 mentions that the policy manager determines authorization given access control rules for the call and identity of the user. The

cited para. 97 mentions the policy manager verifying that the logged-in user has access to the entity bean and compares the roles and para. 98 discusses the policy manager responding as to whether the call is authorized.

The cited paras. 90-98 discuss rules indicating whether a type of call to the object EJB is allowed. This discussion of determining whether a type of call to the object is allowed does not teach or suggest the claim requirement of an access authority set for the object indicating access authorities of methods that the object, as opposed to the user, calls. The Examiner has not shown where paras. 90-98 teach or mention looking at access authorities of methods called by the object subject to the call request from the user.

The cited paras. 109-113 are similarly deficient. The cited para. 109 mentions verifying whether the user has authority to access an entity. The cited para. 110 mentions when the security check is performed. The cited para. 111 mentions determining if a user can access arguments of an EJB method. The cited paras. 112 and 113 mentions that access control can be determined before or after the call.

These cited paras. 109-113 do not teach the claim requirement of acquiring an object access authority set for the object indicating access authorities for methods called by the object. Instead, the cited Sheinis discusses looking at the authority of the user call to the object, not looking at the access authorities of methods called by the called object, which is called by the user. For instance, the Examiner has not cited where Sheinis teaches looking at the access authority of methods the Java EJB calls, as opposed to methods a user may invoke on the Java bean.

In the Response to Arguments, the Examiner cited paras. 70, 89, and 220 of Srivastava as teaching the claim requirement of searching a storage section storing execution results for a previous execution of the object prior to executing the call request and in response to determining that the user access authority permits access to the methods called by the object. (FOA, pg. 3) Applicants traverse.

The cited para. 70 discusses caching parameters and instructing the service engine to use or not use cache memory, and inform the engine how long cached data should be retained. When data is static and changes infrequently, requesting retention of fetched data can reduce network traffic and provide faster service. The cited para. 89 mentions that caching information may be stored for each service indicating the extent to which output data for the service should

be cached. The cited para. 220 mentions an execution manger that checks for availability of cached service responses before executing a service and if a response is available, no service will be executed and cached response is returned.

Although the cited Srivastava discusses returning service responses from cache before executing a service, there is no teaching of searching a storage section storing execution results for a previous execution of the object prior to executing the call request and in response to determining that the user access authority permits access to the methods called by the object. This particular combination of returning stored execution results upon checking user access authority with respect to methods called by the object that is called to execute is not taught or suggested in the cited combination.

The Examiner additionally cited paras. 345-347 of Srivastava as teaching the searching a storage section limitation. (FOA, pg. 6) Applicants traverse.

The cited para. 345 mentions that service components attempt to read information from the cache, and if not in cache read from the registries. Para. 346 mentions that service caches may be implemented as database tables. The cited para. 347 mentions that when a service engine starts-up, it populates the service cache and updates entries. These cited paragraphs also do not teach or suggest the claim requirement of searching for results for a previous execution of an object in response to determining that the user access authority permits access to the methods called by the object.

Accordingly, claims 31, 47, and 56 are patentable over the cited art because the cited Sheinis and Srivastava do not teach or suggest all the claim requirements.

Claims 31-34 and 40-46, 48-55, and 57-64 are patentable over the cited art because they depend from one of claims 31, 47, and 56, which are patentable over the cited art for the reasons discussed above, and because the combination of these dependent claims with the base and any intervening claims provide further grounds of patentability over the cited art.

Claims 40, 50, and 59 depend from claim 31, 47, and 56, respectively, and further require determining methods called by the object; determining an access authority for each determined method; generating the object access authority set to comprise the determined access authorities of the determined methods, wherein the object access authority set indicates access authorities needed to execute the determined methods.

The Examiner cited the above discussed paras. 90-98 and 109-113 of Sheinis as teaching the additional requirements of these claims. (FOA, pg. 7) Applicants traverse.

As discussed, the cited paragraphs of Sheinis discuss determining whether a call is allowed from a user by examining rules on types of permissible calls. The cited Sheinis does not teach determining an access authority for each determined method to generate the object access authority set to indicate access authorities needed to execute the methods called by the object. Instead, the cited Sheinis discusses determining whether a call by a user is permitted, not the claim requirement of determining methods called by the object subject to the user call and then determining the access authority for each method the called object calls. For instance, the Examiner has not cited where Sheinis teaches determining methods called by the java entity bean (EJB) called by the user and then generating an object access authority to have access authorities of methods called by the EJB. Instead, the cited Sheinis discusses determining access authority of methods a user may invoke on an object.

Accordingly, claims 40, 50, and 59 provide additional grounds of patentability over the cited art because the cited combination of Sheinis and Srivastava do not teach or suggest the additional requirements of these claims.

Claims 41, 51, and 60 depend from claims 40, 40, and 59, respectively, and further require that determining the access authority for each determined method calling additional methods comprises determining the access authorities of the additional methods called by the method, wherein the object access authority set for the method additionally includes the determined access authorities of the additional methods called by the method.

The Examiner cited paras. 72, 83, 114, and 130 of Sheinis as teaching the additional requirements of these claims. (FOA, pgs. 4, 8) Applicants traverse

The cited para. 72 mentions that an EJB proxy is generated in response to a request to a service locator for a home interface. When a servlet requests a home interface from a service locator, an EJB proxy is dynamically generated to provide a supra-interface for the servlet through which the servlet can access the home interface. This allows the EJB to control access. The service locator wraps the home interface in the EJB proxy to control access. The cited para. 83 discusses Java classes with methods to determine the access rights of an access request for a target EJB. Placing the functionality in the EJB container provides security for non-Web based clients. The cited para. 114 mentions ensuring that the user represented by the call has access to

the entities the user created. The cited para. 130 mentions a role of viewer and administrator, where the viewer is permitted to call a method to view a salary in an employee record and an administrator may call methods to create, view, modify and delete an employee record.

Although the cited paragraphs of Sheinis discuss how to control the calls different users may make to access the EJB with different methods, there is no teaching or suggestion of the claim requirement that for each determined additional method called by methods the object calls, determining the access authorities of the additional methods called by the method called by the object. For instance, the Examiner has not cited where Sheinis teaches determining methods called by methods the EJB calls to include in the object access authority set for the method. Instead, the cited Sheinis discusses how to determine when a call may be made by a user to the EJB, not to determine the access authority of additional methods called by methods called by the EJB object to include in an access authority set for the object. The Examiner has not cited where Sheinis teaches an access authority set having the access authorities for all methods called by an object and additional methods called by the methods the object calls.

Accordingly, claims 41, 51, and 60 provide additional grounds of patentability over the cited art because the cited combination of Sheinis and Srivastava do not teach or suggest the additional requirements of these claims.

Claim 42, 52, and 61 depend from claims 40, 50, and 59, respectively, and further require that access to the execution results is not granted to the user if the access authority for one determined method is unknown.

The Examiner cited the above discussed paras. 93, 94, and 97 of Sheinis as teaching the additional requirements of these claims. (FOA, pg. 8) Applicants traverse.

Although the cited paras. 93, 94, and 74 discuss rules indicating whether a type of call is allowed and determining whether a type of call is allowed, this does not teach or suggest the claim requirements that access to the execution results of executing the method called by the object is not granted if the access authority for one method called by the object the user wants to access is unknown.. The Examiner has not cited any part of Sheinis or other art that teaches denying access to the execution results if the access authority of one method called by the requested object is unknown.

Accordingly, claims 42, 52, and 61 provide additional grounds of patentability over the cited art because the cited combination of Sheinis and Srivastava do not teach or suggest the additional requirements of these claims.

Claims 43, 53, and 62 depend from claims 42, 52, and 61, and further requires that the object is executed even if access to the execution results is not granted.

The Examiner cited the above discussed paras 93-94 of Sheinis as teaching the additional requirements of these claims. (FOA, pg. 8) Applicants traverse.

Applicants submit that the discussion in Sheinis of rules indicating whether a type of call is allowed and determining whether a type of call is allowed does not teach or suggest that an object is executed even if access to execution results is not granted. The Examiner has not cited where Sheinis or other cited art teaches or suggests the distinction of the claims of executing an object even if access to execution results are not granted.

Accordingly, claims 43, 53, and 62 provide additional grounds of patentability over the cited art because the cited combination of Sheinis and Srivastava do not teach or suggest the additional requirements of these claims.

Conclusion

For all the above reasons, Applicant submits that the pending claims 31-34 and 40-64 are patentable. Should any additional fees be required beyond those paid, please charge Deposit Account No. 09-0460.

The attorney of record invites the Examiner to contact him at (310) 553-7977 if the Examiner believes such contact would advance the prosecution of the case.

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